

La Capra Associates

January 10, 2012

Ms. Debra Howland
Executive Director and Secretary
State of New Hampshire
Public Utilities Commission
21 S. Fruit St, Suite 10
Concord, NH 03301-2429



Dear Ms. Howland,

Please find attached two applications for the Washington Electric Cooperative for registration of its landfill gas generators in the RPS markets in New Hampshire. The first application is for NH Class I registration and the second application is for NH Class III registration. If you have any questions feel free to contact me at 802-861-1617. We look forward to your review and consideration of these generation projects for eligibility in the NH RPS markets.

Best regards,

Patricia Richards
Senior Consultant

Contact Information

Patricia Richards, Senior Consultant

La Capra Associates, Inc.
277 Blair Park Road, Suite 210
Williston, VT 05495

Tel: 802-861-1617

E-mail: prichard@lacapra.com

(2)

Coventry

(City)

VT

(State)

05855

(Zip code)

9. Latitude: 45 Longitude: -72

10. The name and telephone number of the facility's operator, if different from the owner: Same ☒

(Name)

(Telephone number)

11. The ISO-New England asset identification number, if applicable: 12,323 or N/A: ☐

12. The GIS facility code, if applicable: MSS12323 or N/A: ☐

13. A description of the facility, including fuel type, gross nameplate generation capacity, the initial commercial operation date, and the date it began operation, if different.

14. If Class I certification is sought for a generation facility that uses biomass, the applicant shall submit:

- (a) quarterly average NOx emission rates over the past rolling year,
- (b) the most recent average particulate matter emission rates as required by the New Hampshire Department of Environmental Services (NHDES),
- (c) a description of the pollution control equipment or proposed practices for compliance with such requirements,
- (d) proof that a copy of the completed application has been filed with the NHDES, and
- (e) conduct a stack test to verify compliance with the emission standard for particulate matter no later than 12 months prior to the end of the subject calendar quarter except as provided for in RSA 362-F:12, II.
- (f) ☒ N/A: Class I certification is NOT being sought for a generation facility that uses biomass.

15. If Class I certification is sought for the incremental new production of electricity by a generation facility that uses biomass, methane or hydroelectric technologies to produce energy, the applicant shall:

- (a) demonstrate that it has made capital investments after January 1, 2006 with the successful purpose of improving the efficiency or increasing the output of renewable energy from the facility, and
- (b) supply the historical generation baseline as defined in RSA 362-F:2, X.
- (c) ☒ N/A: Class I certification is NOT being sought for the incremental new production of electricity by a generation facility that uses biomass, methane or hydroelectric technologies.

16. If Class I certification is sought for repowered Class III or Class IV sources, the applicant shall:

- (a) demonstrate that it has made new capital investments for the purpose of restoring unusable generation capacity or adding to the existing capacity, in light of the NHDES environmental permitting requirements or otherwise, and

- (b) provide documentation that eighty percent of its tax basis in the resulting plant and equipment of the eligible generation capacity, including the NHDES permitting requirements for new plants, but exclusive of any tax basis in real property and intangible assets, is derived from the new capital investments.
 - (c) ☐ N/A: Class I certification is NOT being sought for repowered Class III or Class IV sources.
- 17. If Class I certification is sought for formerly nonrenewable energy electric generation facilities, the applicant shall:
 - (a) demonstrate that it has made new capital investments for the purpose of repowering with eligible biomass technologies or methane gas and complies with the certification requirements of Puc 2505.04, if using biomass fuels, and
 - (b) provide documentation that eighty percent of its tax basis in the resulting generation unit, including NHDES permitting requirements for new plants, but exclusive of any tax basis in real property and intangible assets, is derived from the new capital investments.
 - (c) ☐ N/A: Class I certification is NOT being sought for formerly nonrenewable energy electric generation facilities.
- 18. If Class IV certification is sought for an existing small hydroelectric facility, the applicant shall submit proof that:
 - (a) it has installed upstream and downstream diadromous fish passages that have been required and approved under the terms of its license or exemption from the Federal Energy Regulatory Commission, and
 - (b) when required, has documented applicable state water quality certification pursuant to section 401 of the Clean Water Act for hydroelectric projects.
 - (c) ☐ N/A: Class IV certification is NOT being sought for existing small hydroelectric facilities.
- 19. If the source is located in a control area adjacent to the New England control area, the applicant shall submit proof that the energy is delivered within the New England control area and such delivery is verified using the documentation required in Puc 2504.01(a)(2) a. to e.
- 20. All other necessary regulatory approvals, including any reviews, approvals or permits required by the NHDES or the environmental protection agency in the facility's state.
- 21. Proof that the applicant either has an approved interconnection study on file with the commission, is a party to a currently effective interconnection agreement, or is otherwise not required to undertake an interconnection study.
- 22. A description of how the generation facility is connected to the regional power pool of the local electric distribution utility.
- 23. A statement as to whether the facility has been certified under another non-federal jurisdiction's renewable portfolio standard and proof thereof.
- 24. A statement as to whether the facility's output has been verified by ISO-New England.

25. A description of how the facility's output is reported to the GIS if not verified by ISO-New England.
26. An affidavit by the owner attesting to the accuracy of the contents of the application.
27. Such other information as the applicant wishes to provide to assist in classification of the generating facility.

28. This application and all future correspondence should be sent to:

Ms. Debra A. Howland
Executive Director and Secretary
State of New Hampshire
Public Utilities Commission
21 S. Fruit St, Suite 10
Concord, NH 03301-2429

29. Preparer's information:

Name: Patricia H Richards Phone 802-861-1617

Title: Senior Consultant

Address: (1) La Capra Associates

(2) 277 Blair Park

(3) Suite 210

Williston

(City)

VT

(State)

05495

(Zip code)

30. Preparer's signature:



New Hampshire REC Market Application - Coventry Clean Energy #4 (Asset ID 12323)

Questions from Application:

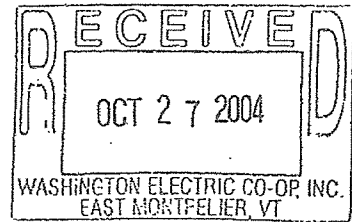
13. Description of the facility – Washington Electric Cooperative built a landfill gas burning generation facility and commenced operations in July, 2005. The original facility included three Caterpillar engine-generator sets each rated at 1,600 kW for a total installed gross generating capacity of 4.8 MW. In 2006, the Cooperative looked to expand the Coventry Clean Energy Project by adding a fourth 1.6 MW engine to the facility. The 4th engine went on line in January 2007. Due to increased methane gas availability at the landfill, WEC was able to add a fifth 1.6 MW engine in June of 2009. The fourth and fifth engines at the facility are registered separately from the original project and have their own ISO-NE Asset Identification number and are therefore treated as separate projects even though they share a building with the first three engines.
14. NA
15. NA
16. NA
17. NA
18. NA
19. NA – Unit is located within the New England control area
20. Vermont Certificate of Public Good - Attached
21. Interconnection Study – VELCO analyzed the impact of the facility connecting to their system and the grid. The details of their study were filed as part of the facility receiving a permit from the state of Vermont. See the following attached files for details:
 - a. Transmission Expansion –Dean LaForest Testimony Final.pdf
 - b. Transmission Expansion – Exhibits 61 thru 64.pdf
 - c. Transmission Expansion – LaForest.pdf
22. Description of the interconnected to regional power grid – The project is connected to the WEC Irasburg transmission line which then connects to VELCO. There is a substation located at the landfill which consists of three major components. The first component is a 4.16 kV-46 kV step-up substation. This consists of a 4.16 kV generation bus where the output of the generators is connected. The output will then be stepped up to 46 kV through a 4.16 kV-46 kV transformer. Finally, a 46 kV circuit breaker is provide for protection to the substation. The second major component of the interconnection is a 46 kV line from the landfill to the VELCO Irasburg Substation. This line is 7.4 miles long. The final component of the interconnection is the 46 kV circuit breaker and metering at the VELCO Irasburg Substation. The breaker is necessary to provide protection for line faults and the metering for measurement of the

net output of the generators. The project is connected to the regional power grid at this substation in Irasburg.

23. MA and RI Class 1 Certified – Copy Attached
24. The output of the facility is settled in the ISO-NE market systems and is therefore verified through the ISO-NE market system. All output is currently being reported in the NEPOOL GIS system
25. NA
26. See attached affidavit from Avram Patt, WEC General Manager
27. The project is already Massachusetts and Rhode Island Class 1 certified and is therefore registered in the NEPOOL GIS system. Washington Electric Cooperative is currently seeking application in the New Hampshire renewable markets in an effort to expand its ability to sell RECs to interested parties/utilities in New Hampshire.

cc: Auram

STATE OF VERMONT
PUBLIC SERVICE BOARD



Docket No. 6925

Joint Petition by Washington Electric Cooperative,)
Inc. ("WEC"), Vermont Electric Power Company,)
Inc. ("VELCO"), Citizens Communications)
Company ("CZN"), and Vermont Electric)
Cooperative, Inc. ("VEC") for a certificate of public)
good, pursuant to 30 V.S.A. Section 248,)
authorizing: (1) WEC to construct an electric)
generation station in Coventry, Vermont; (2) WEC)
and VELCO to make improvements to the Irasburg)
substation; and (3) WEC, VEC and CZN to construct)
46 kV transmission lines in Coventry and Irasburg,)
Vermont, including provisions for distribution)
system construction by CZN and VEC)

Order entered:

10/21/2004

ORDER RE WASHINGTON ELECTRIC COOPERATIVE'S MOTION TO ALLOW LIMITED
CONSTRUCTION PRIOR TO RECEIPT OF THE NECESSARY ACT 250 PERMIT

I. INTRODUCTION

On June 4, 2004, the Vermont Public Service Board ("Board") issued an Order and Certificate of Public Good ("CPG") in this Docket approving the construction of the Coventry landfill gas generation project ("Project") proposed by Washington Electric Cooperative, Inc. ("WEC"). The Order adopts a Stipulation signed by all parties to the Docket and filed with the Board on May 19, 2004. The Stipulation requires that WEC not commence construction on the Project until an Act 250 permit has been issued approving Casella Waste Management's proposed expansion of the Coventry landfill. The economic feasibility of the Project is dependent on the expansion of the landfill.

On September 2, 2004, WEC filed a motion requesting that the Board modify the CPG issued in this Docket, to allow construction prior to the issuance of the required Act 250 Permit.

The Board, in an Order dated September 20, 2004, denied WEC's request on the grounds that construction prior to issuance of the necessary Act 250 permit introduced a new material risk, the possibility of an estimated \$1.35 million in stranded costs.

On October 20, 2004, WEC filed a second, and substantially different, motion requesting permission to commence construction prior to the issuance of the necessary Act 250 permit. The motion indicated that the Vermont Department of Public Service and the Vermont Agency of Natural Resources do not oppose WEC's motion. In this Order we grant WEC's October 20 motion, for the reasons set forth below.

II. DISCUSSION AND CONCLUSION

This motion differs WEC's September 2 filing in two significant ways. First, WEC is now seeking permission to perform only limited construction work on the approved generation facility, prior to the issuance of the necessary Act 250 permit. The work would be limited to construction of the foundation for the facility. Second, the Cooperative's members will no longer be exposed to a risk of significant stranded costs (an estimated \$1.35 million) if the Project does not proceed. WEC now estimates that the cost of constructing the foundation alone is approximately \$275,000.¹

WEC's October 20 filing indicates that Gordon Deane, WEC's project consultant, has agreed to assume the stranded cost risk of the limited construction requested by WEC. Under this arrangement, Mr. Deane will provide WEC with a non-recourse bridge loan for the \$275,000 needed to construct the foundation. If the necessary Act 250 permit is not issued, WEC and its members will owe nothing.² If the necessary Act 250 permit is issued, WEC pays a financing fee to Mr. Deane of 10% of the guarantee needed for the construction (\$275,000), plus one percent a month for any outstanding balance of the monies actually lent by Mr. Deane for the project. The

1. October 20 Motion at 4.

2. In the event that the Act 250 permit is not issued by January 1, 2005, the agreement requires WEC to utilize its best efforts to provide security for the expended monies against any assets it may have relating to the Coventry Project; e.g., an assignment of the CCEC contracts. Mr. Deane will have the ability to foreclose on these assigned assets if WEC decides not to go forward with the Project or if the necessary permit is not issued by July 1, 2005.

total estimated cost of this hedging arrangement is estimated by WEC at \$29,500.³ The cost for this financial hedging arrangement is comparable to the increased cost of winter construction of the foundation (estimated by WEC at approximately \$30,000) that WEC would face if commencement of construction was deferred by several more weeks.⁴ Additionally, this hedging fee is nominal in light of the \$7.32 million overall cost⁵ of the Coventry Project.

WEC's October 20 motion differs significantly from its prior request to commence construction in one important aspect: WEC's members would not be liable for the risks of any stranded costs that may result if WEC commences construction prior to the issuance of the necessary Act 250 permit. It was concern for the effects of this potential \$1.35 million stranded costs on WEC's members that led us to deny WEC's September 2 Motion. WEC has sufficiently addressed this concern and we therefore grant WEC's motion to allow construction of the foundation of the Coventry generation facility prior to the issuance of the necessary Act 250 permit. We have some concern, however, about the possibility of Mr. Deane foreclosing on certain assets if the necessary Act 250 permit is not issued by July 1, 2005, or WEC decides not to go forward with the Project. Consequently, we require WEC to inform the Board, in writing (1) when the Act 250 permit is issued; and (2) when it has fully satisfied its financial obligation to Mr. Deane under the terms of their agreement. If, as of May 1, 2005, WEC has, for any reason, an outstanding obligation to Mr. Deane under this agreement, WEC must notify the Board and provide a detailed explanation of its intentions with respect to the Project, including its outstanding obligations to Mr. Deane.

SO ORDERED.

3. October 20 Motion at 8.

4. October 20 Motion at 5.

5. Docket 6925, Order of 6/4/04 at 12.

Dated at Montpelier, Vermont, this 21st day of October, 2004.

s/Michael H. Dworkin)

PUBLIC SERVICE

s/David C. Coen)

BOARD

s/John D. Burke)

OF VERMONT

A true copy:

OFFICE OF THE CLERK

FILED: October 21, 2004

ATTEST:

Judith C. Whitney
Acting Clerk of the Board

NOTICE TO READERS: This decision is subject to revision of technical errors. Readers are requested to notify the Clerk of the Board (by e-mail, telephone, or in writing) of any apparent errors, in order that any necessary corrections may be made. (E-mail address: Clerk@psb.state.vt.us)

STATE OF VERMONT
PUBLIC SERVICE BOARD

Docket No. 7455

Petition of Washington Electric Cooperative, Inc.)
("WEC") requesting: (1) a certificate of public good,)
pursuant to 30 V.S.A. § 248(j), authorizing the)
Coventry Project Expansion; and (2) approval of)
WEC's promissory note to the National Rural)
Utilities Cooperative Finance Corporation, pursuant)
to 30 V.S.A. § 108, to finance the Coventry Project)
Expansion

Entered: 9/17/2008

CERTIFICATE OF PUBLIC GOOD ISSUED
PURSUANT TO 30 V.S.A. SECTION 248

IT IS HEREBY CERTIFIED that the Public Service Board of the State of Vermont this day found and adjudged that the proposed construction associated with the expansion of the generating facility and substation upgrade in Coventry, Vermont, by Washington Electric Cooperative, Inc. in accordance with the evidence and plans submitted in this proceeding, will promote the general good of the State, subject to the following conditions:

1. Construction, operation, and maintenance of the project shall be in accordance with the plans and evidence submitted in this proceeding.
2. Washington Electric Cooperative, Inc. shall not begin construction until its members have approved the project, pursuant to 30 V.S.A. § 248(c).
3. All construction activities will be in compliance with the Coventry Generation Facility's Erosion Prevention and Sediment Control Plan.
4. This Certificate of Public Good shall not be transferred without prior approval of the Board.

DATED at Montpelier, Vermont, this 17th day of September, 2008.

s/ James Volz

s/ David C. Coen

s/ John D. Burke

PUBLIC SERVICE

BOARD

OF VERMONT

A TRUE COPY:
OFFICE OF THE CLERK

Filed: September 17, 2008

Attest:

Clerk of the Board

NOTICE TO READERS: This decision is subject to revision of technical errors. Readers are requested to notify the Clerk of the Board (by e-mail, telephone, or in writing) of any apparent errors, in order that any necessary corrections may be made. (E-mail address: psb.clerk@state.vt.us)

**STATE OF VERMONT
PUBLIC SERVICE BOARD**

Docket No.

Petition by Washington Electric Cooperative,)
Inc. ("WEC"), for (1) a Certificate of Public)
Public Good pursuant to 30 V.S.A. § 248(j))
authorizing the Coventry Project Expansion;)
and (2) approval of WEC's promissory note)
to the National Rural Utilities Cooperative)
Finance Corporation (CFC) pursuant to)
30 V.S.A. § 108 to finance the Coventry)
Project Expansion.)

**PRE-FILED TESTIMONY OF
DEAN L. LaFOREST**

**ON BEHALF OF
VERMONT ELECTRIC POWER COMPANY, INC. (VELCO)**

Q1. Please state your name and address and identify by whom you are employed.

A1. My name is Dean L. LaForest. My business address is Vermont Electric Power
Company, Inc., 366 Pinnacle Ridge Road, Rutland, VT 05701. I am an electrical
engineer employed as the manager of transmission planning at Vermont Electric
Power Company (VELCO). I have special training and experience in the areas of
transmission planning and the modeling of power systems. My complete resume
appears at WEC Exhibit ___DLL-1.

1 **Q2. What is your interest in this hearing?**

2 A2. I am an employee of the VELCO, and will be testifying on its behalf.

3

4 **Q3. Have you ever testified before the Vermont Public Service Board before?**

5 A3. I have provided testimony on the behalf of VELCO in four dockets before the
6 Board including Docket No. 6925 for the Coventry Landfill Gas Generating
7 Station, Docket No. 6252 for the Essex STATCOM project, Docket No. 6792 for
8 the Northern Loop project, and Docket No. 6860 for Northwest Reliability
9 Project.

10

11 **Q4. What is the nature of your testimony?**

12 A4. My testimony will describe the impact of the WEC Coventry generation project
13 with an added fourth 1.6 MW generator upon system operations and performance,
14 including stability and short circuit duty. My expert opinion is based, in part,
15 upon past VELCO studies performed for the original WEC Coventry installation
16 in Docket 6925. These original studies examined the performance of the local
17 network with and without the original Coventry project and examined how the
18 generation would impact system operations and performance, including stability
19 and short circuit duty.

20

21

22

1 **Q5. Could you please explain the impact of a fourth generating unit at the**
2 **Coventry Project on the Vermont electric system and network?**

3 A5. VELCO's studies performed for the original Coventry project found that with
4 VELCO's Northern Loop project complete and in-service, there were no expected
5 adverse impacts on local transmission and subtransmission reliability due to
6 thermal or voltage concerns. This included, but was not limited to, concerns
7 identified in my testimony for the original Coventry project over potential
8 impacts upon CVPS' Lowell to Johnson 34.5 kV line.

9 The Northern Loop was completed and placed into service in December of 2005.
10 Based on VELCO's past analyses and my expert opinion, the original Coventry
11 project and the added fourth 1.6 MW generator should cause no adverse impacts.
12 A power flow diagram depicting real and reactive power flows, as well as
13 voltages, with the existing generation facility and an additional 1.6 MW is
14 attached hereto as WEC Exhibit ___DLL-2a & b. These diagrams indicate that
15 almost all of the added power flow from the new generator goes up onto the 115
16 kV system via the Irasburg 115/46 kV transformer.

17 In addition, the installation of a fourth 1.6 MW engine in this area helps to
18 address some local reliability concerns by providing local generation in an area
19 that largely imports its power remotely via the transmission system.

20

21

1 **Q.6. Is there any adverse impact on the area short circuit duty?**

2 A.6. The addition of the fourth unit will cause a minimal impact on local short circuit
3 duties and should not cause any local equipment to be replaced due to short circuit
4 levels.

6 **Q.7. Is there any adverse impact on local stability?**

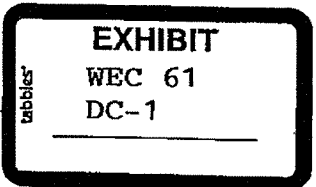
7 A.7. The addition of the fourth unit will have no adverse impact on local stability
8 performance provided that the project's relaying addresses out of step and loss of
9 synchronism concerns.

11 **Q8. Did ISO New England consider the impact of this project?**

12 A.8. Yes. ISO-New England took notice of this project at its May 2, 2006, meeting. It
13 considered the project to be a level 0. Level 0 projects have an even lower
14 threshold than level 1, for which an application needs to be filed, but no analysis
15 is required. VELCO typically refers to level 1 applications as information only
16 applications. Essentially, by determining this project is a level 0, ISO-New
17 England has no concerns that there will be an adverse impact upon the
18 transmission system.

20 **Q9. Does this conclude your testimony?**

21 A.9. Yes.



QUALIFICATIONS

- Twenty-seven years of Transmission and Distribution Engineering and Management
- Registered Professional Engineer, Vermont, Pennsylvania, New Jersey

PROFESSIONAL EXPERIENCE & ACCOMPLISHMENTS

POWER SUPPLY

- Assisted in the VEC pre-bankruptcy and post bankruptcy load forecasts and power supply contract negotiations with the New England Power and Northeast Utilities Corporations.

TECHNICAL

- Provided Bond Engineer review of Village of Hardwick, Village of Swanton, Green Mountain Power, and Morrisville Water and Light Facilities.
- Designed 7.4 miles of 48kV line and generator step-up substation for the Coventry Landfill Project, Coventry, Vermont.
- Designed Lodge Substation rebuild along with transmission and distribution improvements to serve the Stowe Mountain Resort expansion, Stowe, Vermont.
- Developed an innovative plan using two unused 115 kV lines operating at 34.5 kV to keep the Freehold, NJ area from experiencing severe voltage problems during the summer of 1990.
- Designed and supervised construction of a 1000 foot distribution span over a deep gorge in West Townshend, Vermont.
- Designed and specified equipment for 34.5 kV distribution lines in Jericho and Cambridge, Vermont.
- Designed, specified equipment for, and supervised the construction of a new 34.5 kV structure at Underhill Substation.
- Developed and implemented construction and operational plans that reduced VEC outage rate by 30%.
- Designed 5 MVA, 46-12.5 kV substation for the AgriMark Middlebury plant.

MANAGEMENT

- Supervised Engineering and Operations at the Vermont Electric Cooperative including:
 - Northern District Line Department consisting of the Northern District Line Supervisor, 11 linemen, and a mechanic, and;
 - Southern District Line Department consisting of the Southern District Line Supervisor, four linemen and an engineering technician, and;
 - Engineering Department consisting of the Engineering Supervisor, two engineering technicians, and a clerk, and;
 - Dispatch Department consisting of one VEC dispatcher and two contract night dispatchers, and;
 - Purchasing Department consisting of one Purchasing Supervisor and two stock clerks.

Daniel R. Crocket, P.E.

- Supervised the Northern Area Studies Group at Jersey Central Power and Light consisting of three junior engineers and two draftsmen. This group was responsible for the PCB contaminated capacitor replacement program, performing circuit analysis, and mapping.
- Recognized the need to quantify the number of miles of line clearing required on the VEC system and implemented a program to record actual clearing on a foot/span basis. Obtained funding to allow a seven-year clearing cycle.

CONTRACT ADMINISTRATION EXPERIENCE

- Participated in successful contract negotiations with IBEW Local 300 in 1990, 1992, 1994, 1996, 1997, and 1999. Worked closely with the IBEW to modify the contract to include a four-day workweek and allow for "rubber-gloving" energized lines.
- Prepared and sent out for bid, construction contracts for the rebuilding of 150 miles of distribution lines.
- Negotiated maintenance contract with NEP for the North Hartland Hydroelectric Station.

REGULATORY EXPERIENCE

- Prepared testimony for VEC rate cases including the capital and O&M budgets.
- Wrote the T&D section of the IRP and negotiated a settlement of this section with the Department. The Board approved this IRP in 1999.
- Provided testimony to successfully resolve two long-standing Dockets, Windham and Derby Center, where members were trying to secede from the Cooperative.
- Operated the 4MW North Hartland Hydro-electric Station including:
 - the 401 Water Quality Permit, and;
 - the Army Corps Of Engineers Operating Agreement, and;
 - the FERC license.
- Prepared annual outage report for the DPS and PSB. Worked closely with Department consumer representatives to resolve members' service problems and complaints.
- Prepared statistical information yearly for the FERC 1 Report.
- Prepared the RUS Form 300 operating report bi-annually and met with representatives of RUS to discuss capital and O&M spending.

BUDGETARY/FINANCIAL EXPERIENCE

- Assisted with \$200M annual T&D capital budget preparation at JCP&L, including proposing, scheduling and design of projects.
- Developed the \$2M annual T&D capital and O&M portion of the \$15M total budget at VEC. Helped the VEC Comptroller develop and implement an annual cash flow operating budget.
- Negotiated new pole attachment rates with NET that doubled attachment revenue.
- Prepared RUS loan and Work Plan documents.

ENVIRONMENTAL EXPERIENCE

- Recognized the need to develop a program to remove PCB contaminated regulators and transformers from substations, and oversaw the implementation of a retro-fit/removal program.

Daniel R. Crocket, P.E.

- Prepared a Borrower's Environmental Reports required for the Vermont Electric Cooperative 1991-92 Work Plan and Washington Electric Cooperative 2004-2008 Work Plan.

EDUCATION

B.S., Electrical Engineering, Lafayette College, 1977-1981

EMPLOYMENT HISTORY

CROCKET ENGINEERING, LLC-Essex Junction, VT
2006

E-PRO ENGINEERING & ENVIRONMENTAL CONSULTING, LLC – Montpelier, VT
2001 – 2006 *Principal Electrical Engineer*

GREEN MOUNTAIN POWER CORPORATION – Colchester, VT
1999 – 2001 *Senior Engineer*

VERMONT ELECTRIC COOPERATIVE – Johnson, VT
1990 – 1999 *Engineering and Operations Manager*

JERSEY CENTRAL POWER & LIGHT – Morristown, NJ
1981 – 1990 *Engineer I-Senior Engineer*

PROFESSIONAL AFFILIATIONS / REGISTRATIONS/OTHER

Member, IEEE

Westford Zoning Board of Adjustment (1997-2003)

Registered Professional Engineer:

Vermont (#5989), since 1990

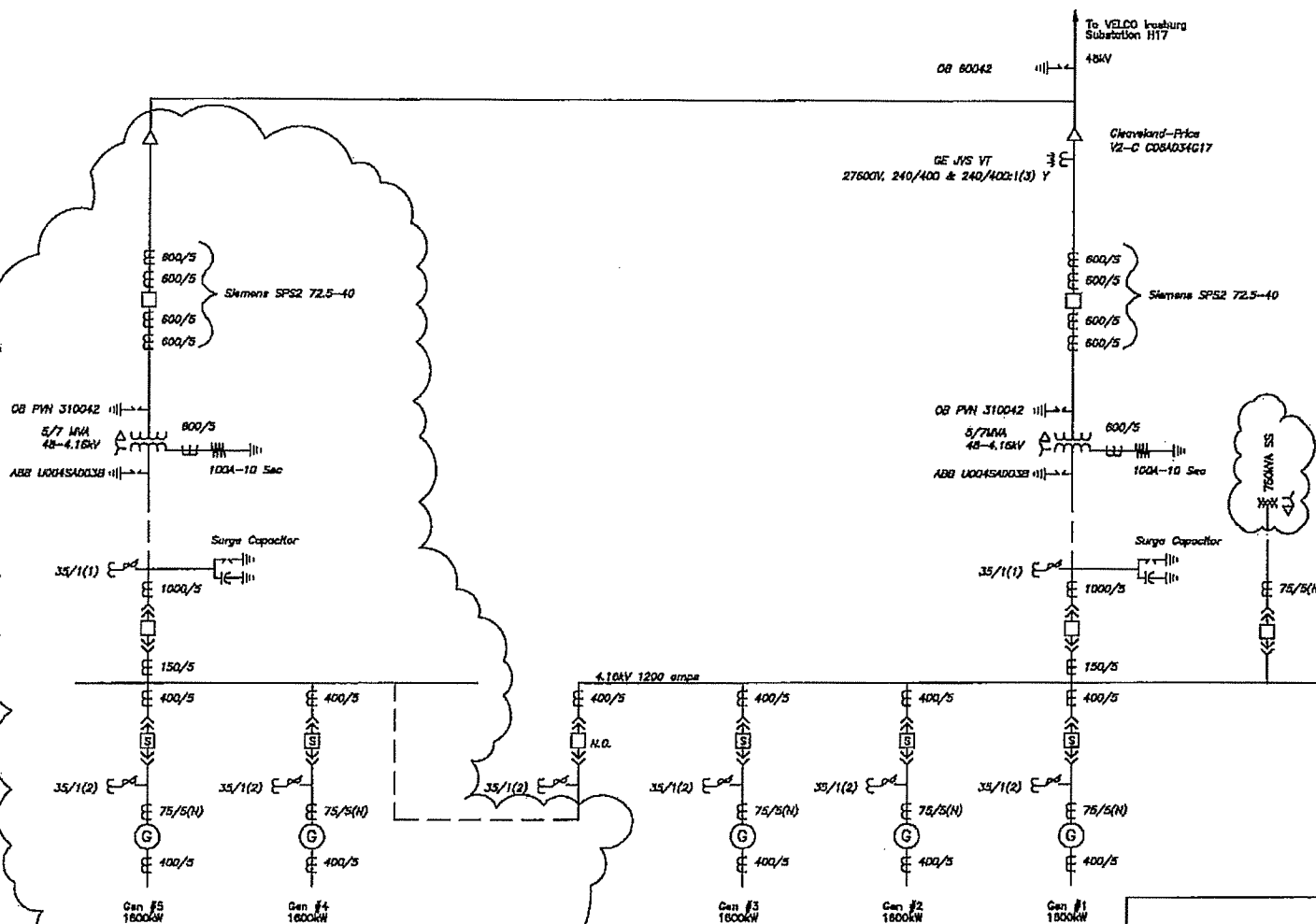
Pennsylvania (#PE-038329-R), since 1988

New Jersey (#GE31539), since 1986

President, Green Mountain Division, US Fencing Association (2005-Present)

Nationally Rated Referee, USFA

Head Coach, UVM Fencing Club, Salle Catamount



2008 Construction

2008 Construction

WASHINGTON ELECTRIC COOPERATIVE
EAST MONTPELIER, VERMONT

COVENTRY LANDFILL
SUBSTATION
SINGLE LINE

DRAWN: DRC	DWG. No. COVENTRY LANDFILL SUB	
LOCATION: COVENTRY, VERMONT		
CHECKED:	APPROVED:	
SCALE: NONE	DATE: 1/28/08	SHEET 1 OF 1

[illegible]

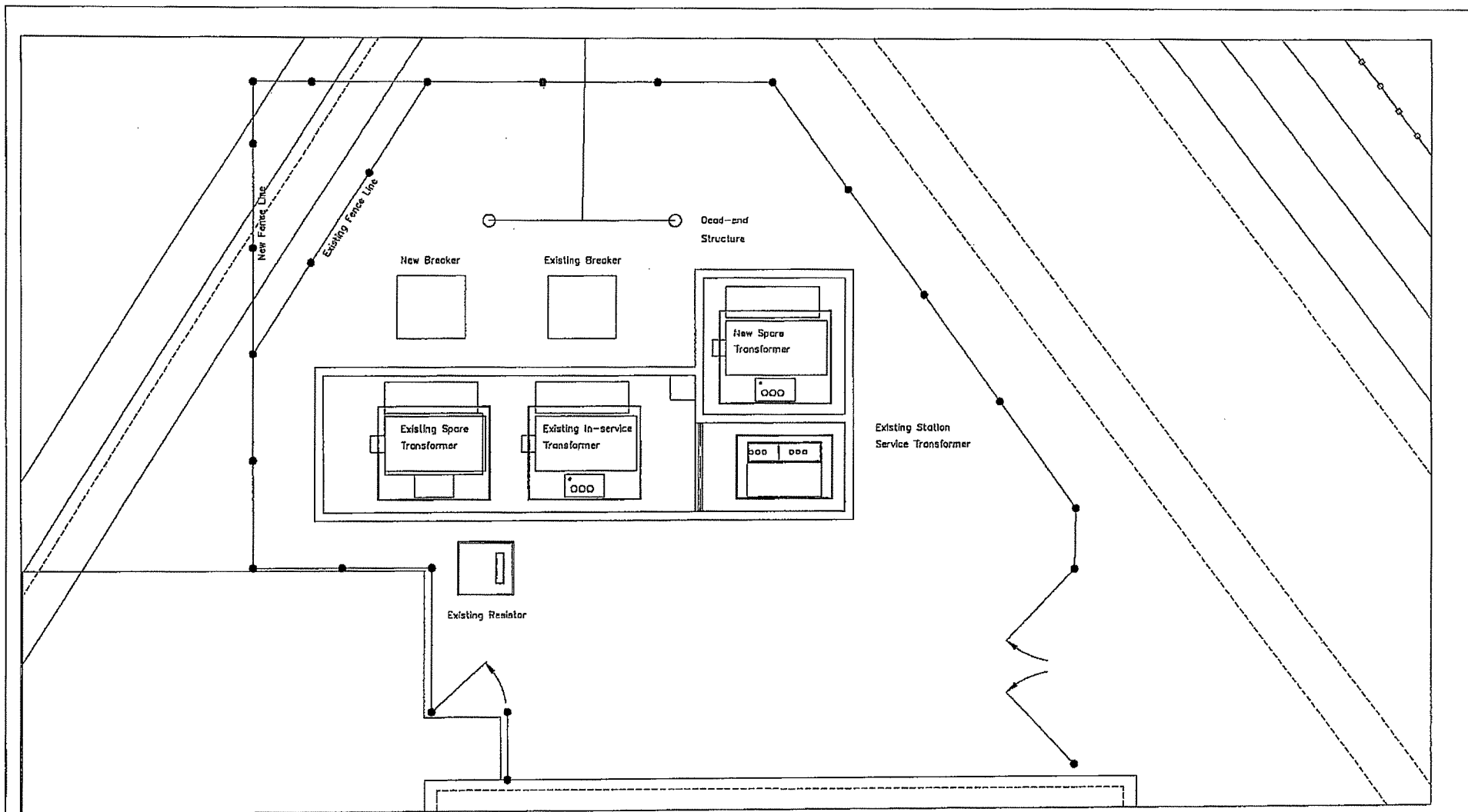
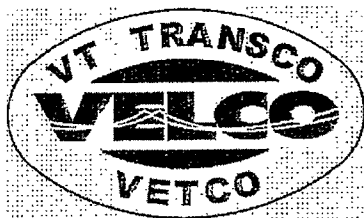


EXHIBIT
WEC 63
DC-3

Crocket Engineering, LLC
 PO Box 5205, Essex Junction, VT 05453
 CONTRACT DWG NO. PROJECT

WASHINGTON ELECTRIC COOPERATIVE	
COVENTRY SUBSTATION SITE PLAN-UNIT FIVE REVISIONS	
DRAWN: DRC	DWG. No. 1
LOCATION:	
CHECKED: DRC	APPROVED:
SCALE: n/a	DATE: 6/17/08 SHEET 1 of 1

SHEET 1 of 1



July 11th, 2008

Joshua R. Diamond, General Counsel
Washington Electric Cooperative
Address

Re: WEC's §248 Application for Coventry Generation Facility Expansion

Dear Joshua:

On June 17th, 2008, the NEPOOL Reliability Committee took notice of the Coventry proposed plan application, agreeing that no analysis is required for this generation change, which will be less than the 5 MW threshold for studies. The assumption is that a 1.6 MW addition on the 48 kV system should have a negligible impact on the transmission system, 115 kV and higher.

Since the initial installation of the first three units, many changes have occurred on the system. The so-called Northern Loop 115 kV project, connecting Irasburg to Highgate, was placed in service in 2005 and reduced the potential thermal impacts of the Coventry plant on the local 34.5/46 kV sub-transmission system. This positive effect was a factor in our positive statement regarding the addition of the fourth unit. However, a number of generation projects have been proposed in the vicinity of Irasburg and Highgate since then. The combination of these generation projects will increase the flow on the sub-transmission system, and the addition of the 5th Coventry unit may under certain conditions, such as lower load levels and high generation, exceed the capacity of the local sub-transmission facilities. These negative impacts may be managed in daily operations by dispatching Coventry or other local units out of service.

From a short circuit perspective, it is unlikely that the 5th Coventry unit will cause the fault duty to exceed equipment limits especially since the majority of the equipment is new in 2006 with the addition of the VELCO Northern Loop Project. However, the short circuit studies are underway to ensure no modifications will be required.

In terms of stability performance, VELCO recommended out-of-step protection on the initial three units because of the potential for the units to lose synchronism for faults on the 115 kV system. To our knowledge, this out-of-step protection has not yet been installed on the existing four units. With the changes that will have occurred since the first generation installation, it is uncertain whether the stability performance will have

changed to allow this out-of-step relaying to no longer be needed. VELCO is in the process of studying the stability performance with the addition of the 5th unit. If it is determined that out-of-step protection is needed VELCO will set an out-of-step relay at the VELCO Irasburg substation to trip the H-17 breaker when an out-of-step condition is detected. This approach will mitigate the stability concern.

If you have any questions, I can be reached by telephone at (802) 770-6219, or by e-mail at hpresume@velco.com.

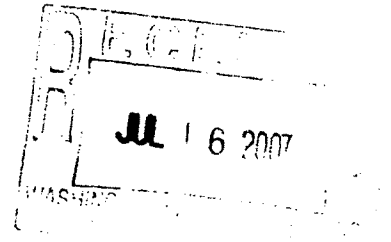
Sincerely,

Hantz A. Présumé,
Team Lead
System Planning & Analysis

Cc: Leslie Cadwell
Frank Etori
Dean LaForest
Kerrick Johnson



COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF
ENERGY AND ENVIRONMENTAL AFFAIRS
DIVISION OF ENERGY RESOURCES
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BOSTON, MA 02114
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Deval L. Patrick
Governor

Timothy P. Murray
Lieutenant Governor

Ian A. Bowles
Secretary, Executive Office of Energy
and Environmental Affairs

Philip Giudice
Commissioner

TELEPHONE
617-727-4732

FACSIMILE
617-727-0030
617-727-0093

July 11, 2007

Mr. Avram Patt
General Manager
Washington Electric Cooperative, Inc.
P. O. Box 8
East Montpelier, VT 05651

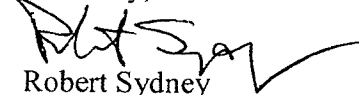
**RE: Amended Statement of Qualification
Coventry Landfill Gas to Energy Facility [LG-1034-05]**

Dear Mr. Patt,

On behalf of the Division of Energy Resources (the Division), I am pleased to inform you that your request to amend the existing Statement of Qualification (SQ) pursuant to the Massachusetts Renewable Energy Portfolio Standard (RPS) Regulations, 225 CMR 14.00, is hereby approved. The Division finds that the Generation Unit, as expanded, continues to meet the requirements for eligibility as a New Renewable Generation Unit pursuant to the RPS regulation at 225 CMR 14.05.

Accordingly, the SQ for the Coventry Landfill Gas to Energy Facility has been amended to reflect the addition of 1.6 MW in capacity and the new NEPOOL GIS number that was assigned to the addition.

Sincerely,


Robert Sydney
General Counsel

Encl: Statement of Qualification

**COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF ENERGY & ENVIRONMENTAL AFFAIRS
DIVISION OF ENERGY RESOURCES**

Statement of Qualification – Amended

**Pursuant to the Renewable Energy Portfolio Standard
225 CMR 14.00**

This Statement of Qualification, provided by the Massachusetts Division of Energy Resources, signifies that the Generation Unit identified below meets the requirements for eligibility as a New Renewable Generation Unit, pursuant to the Renewable Energy Portfolio Standard 225 CMR 14.05, as of the approval date of the Application for Statement of Qualification, this 18th day of February 2005, and as amended this 11th day of July 2007.

Name of Generation Unit:

Coventry Landfill Gas to Energy Facility
Coventry, VT
6.4 MW

Authorized Representative's Name and
Address:

Mr. Avram Patt
General Manager
Washington Electric Cooperative, Inc.
P. O. Box 8
East Montpelier, VT 05651

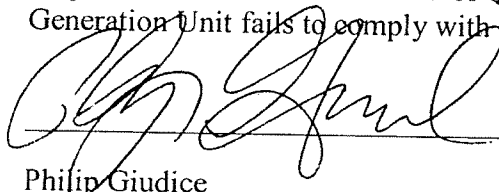
ISO-NE Generation Unit Asset Identification Numbers or NEPOOL-GIS Identification
Numbers:

MSS 10801 (4.8 MW) and MSS 12323 (1.6 MW)

This New Renewable Generation Unit is assigned a unique Massachusetts RPS Identification Number. Please include MA RPS ID #s on all correspondence with the Division.

MA RPS ID #: LG-1034-05

Pursuant to 225 CMR 14.06, the Owner or Operator of the New Renewable Generation Unit is responsible for notifying the Division of any change in eligibility status, and the Division may suspend or revoke this Statement of Qualification if the Owner or Operator of a New Renewable Generation Unit fails to comply with 225 CMR 14.00.



Philip Giudice
Commissioner
Division of Energy Resources

Date: 7-11-07

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
PUBLIC UTILITIES COMMISSION

IN RE: APPLICATION FOR STANDARD CERTIFICATION DOCKET NO. 3884-B
AS ELIGIBLE RENEWABLE ENERGY RESOURCE
FILED BY WASHINGTON ELECTRIC COOPERATIVE
COVENTRY LANDFILL GAS TO ENERGY PROJECT UNIT 4

ORDER

WHEREAS, Effective January 1, 2006, the Rhode Island Public Utilities Commission ("Commission") adopted Rules and Regulations Governing the Implementation of a Renewable Energy Standard (RES Regulations) including requirements for applicants seeking certification as an Eligible Renewable Energy Resource under the RES Regulations¹ pursuant to the Renewable Energy Act, Section 39-26-1 et. seq. of the General Laws of Rhode Island; and

WHEREAS, On October 12, 2007, Washington Electric Cooperative ("Company", Authorized Representative: Avram Patt, General Manager, PO Box 8, East Montpelier, VT 05651, 802-223-5245, Avram.Patt@washingtonelectric.coop) filed with the Commission an application seeking certification for its Washington Electric Cooperative Coventry Landfill Gas to Energy Project (Unit #4) Generation Unit, a 1.6 MW landfill methane gas to energy Generation Unit located in Coventry, Vermont, as an eligible New Renewable Energy Resource under the State of Rhode Island RES Regulations; and

¹ State of Rhode Island and Providence Plantations Public Utilities Commission Rules and Regulations Governing the Implementation of a Renewable Energy Standard – Date of Public Notice: September 23, 2005, Date of Public Hearing: October 12, 2005, Effective Date: January 1, 2006.

WHEREAS, Pursuant to Section 6.0 and other relevant Sections of the RES Regulations, a thirty (30) day period for public comment was provided during which time, no such comments were received, and

WHEREAS, After examination, the Commission is of the opinion that the application is proper, reasonable and in compliance with the RES Regulations, and hereby grants the Company certification as an eligible renewable energy resource pursuant to the Renewable Energy Act, Section 39-26-1 et. seq. of the General Laws of Rhode Island; and

WHEREAS, The Commission's determination in this docket is based on the information submitted by the Company, and the Commission may reverse its ruling or revoke the Applicant's certification if any material information provided by the Applicant proves to be false or misleading.

Accordingly, it is

(19193) ORDERED:

1) That the Wahington Electric Cooperative Coventry Landfill Gas to Energy Project (Unit #4) Generation Unit, meets the requirements for eligibility as a New, Eligible Biomass Renewable Energy Resource with its 1.6 MW, Grid-Connected Generation Unit having a Commercial Operation Date of January 12, 2007 and located within the NEPOOL Control Area in Coventry, Vermont.

2) That the Generation Unit's NEPOOL-GIS Identification Number is MSS12323.

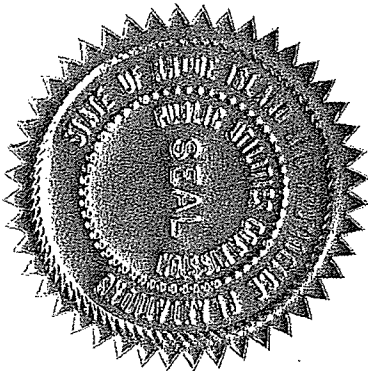
3) That the Company's Generation Unit as identified above is hereby assigned unique certification number RI-3884B-N08.

4) That, although the Commission will rely upon the NEPOOL GIS for verification of production of energy from the Company's Generation Unit certified as eligible in this Order, the Company will provide information and access as necessary to the Commission, or persons acting at its behest, to conduct audits or site visits to assist in verification of continued eligibility for and compliance with RI RES Certification at any time at the Commission's discretion. Such continuing verification shall include an annual affidavit and supporting documentation of use of eligible fuels.

5) That the Company shall notify the Commission in the event of a change in the facility's eligibility status.

DATED AND EFFECTIVE AT WARWICK, RHODE ISLAND ON JANUARY 31, 2008 PURSUANT TO AN OPEN MEETING DECISION. WRITTEN ORDER.
ISSUED FEBRUARY 31, 2008.

PUBLIC UTILITIES COMMISSION



*Elia Germani, Chairman

Robert B. Holbrook, Commissioner

Mary E. Bray, Commissioner

*Chairman Germani concurs but is unavailable.

**STATE OF NEW HAMPSHIRE
PUBLIC UTILITIES COMMISSION**


**IN RE: APPLICATION BY WASHINGTON ELECTRIC
COOPERATIVE, INC., FOR CLASS I RENEWABLE
ENERGY SOURCE ELIGIBILITY, CLASS I.**

AFFIDAVIT OF AVRAM PATT

I, Avram Patt, being first duly sworn, depose and say that:

1. I am the General Manager for Washington Electric Cooperative, Inc. ("WEC"), since 1997, which its principal place of business located in East Montpelier, County of Washington, State of Vermont.
2. I am also long time resident of Washington County, State of Vermont.
3. WEC owns the Coventry Landfill Gas to Energy Facility ("Facility"), located in Coventry, Vermont. The Facility is operated by WEC's wholly owned subsidiary, the Coventry Clean Energy Corporation, Inc. ("CCEC").
4. I have reviewed the application for Renewable Energy Source Eligibility as set forth in Exhibit 1, attached hereto. Based upon my own knowledge, information, and belief, the data and information contained in the application are accurate.
5. This affidavit is based upon my own knowledge, information and belief. To the extent it is based upon information and belief, I believe these facts to be true.

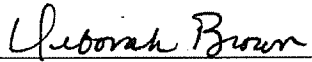
Dated at Montpelier, Vermont, this 10th day of January, 2012.



Avram Patt, General Manager
Washington Electric Cooperative, Inc.

State of Vermont
Washington County, SS.

Subscribed and sworn to before me, on this 10th day of January, 2012.



Notary Public
My Commission Expires 2/10/15